

REMARKS

Status of the Claims

Claim 1 – 11 and 13 - 17 are pending in the present application.

Claim 12 has been cancelled.

Claim 18 - 21 have been withdrawn.

Claim Rejection

Claims 1 - 8, and 13 stand rejected under 35 USC § 103 (a) as being unpatentable over Venkatraman et al in view of Gates et al. with evidence from Ikeda et al.

As stated by the examiner, Venkatraman is silent with respect to different dielectric regions. However, Applicant's claim 1 claims a multiple dielectric regions in the same dielectric layer. As applicant states in paragraph 8, "The process comprises applying to the substrate, via chemical vapor deposition, a continuously varying composition of chemical vapor deposition precursors to form a first dielectric gradient region in which a dielectric constant k decreases continuously from a maximum value to a minimum value with distance from the substrate surface." Thus a single layer is taught with multiple gradients. Gates teaches multiple layers wherein the carbon content and not the dielectric constant vary from the bottom of the second layer to the top. Examiner submits that Ikeda et al. indicates that changes in the carbon content results in a symmetrical change in the dielectric constant. However, Ikeda does not support this position. Ikeda specifically states that, "the dielectric constant tends to decrease as the carbon content in the carbon-containing silicon oxide film increases" Ikeda, does not state that the dielectric constant does. Further, Ikeda states, that the dielectric constant may be different with the same carbon content, therefore the constant could be higher as the carbon containing silicon oxide decreases. Therefore, Examiner's position that the second layer would produce a dielectric constant that increases from the bottom of the layer to the top is not supported. Applicant's invention is drawn to two gradient regions with varying dielectric constants not varying carbon content. None of the references

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disclose or suggest a second gradient layer with a k that increases continuously with distance from the substrate surface. Applicant respectfully requests that the Examiner withdraw the rejection of claims 1 - 8, and 13.

Claims 14-16 stand rejected under 35 USC 103(a) as being unpatentable over Venkatraman et al. in view of Gates et al. with evidence from Ikeda et al. and further in view of Conti et al.

Applicant submits that the Examiner's position based upon Gates et al in view of Ikeda et al. is not supported as stated in the argument above. Applicant respectfully requests that the Examiner withdraw the rejection of claims 14 - 16.

Claim 9 stands rejected under 35 USC 103(a) as being unpatentable in view of Venkatraman et al in view of Gates et al. with evidence from Ikeda et al and further in view of Martin et al.

Applicant submits that the Examiner's position based upon Gates et al in view of Ikeda et al. is not supported as stated in the argument above. Applicant respectfully requests that the Examiner withdraw the rejection of claim 9.

Applicant notes that no formal rejection of claim 10, 11, and 17 were stated in the office action.

Applicant submits that in view of the arguments above, applicant believes the claims are now allowable and respectfully requests reconsideration.

Reservation of Rights

In the interest of clarity and brevity, Applicant may not have equally addressed every assertion made in the Office Action; however, this does not constitute any admission or acquiescence. Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the

Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicant timely objects to such reliance on Official Notice, and reserves all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicant reserves all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

Conclusion

In view of the preceding remarks, Applicants respectfully submit that all pending claims are now in condition for allowance. Favorable reconsideration and allowance of the claims are respectfully requested.

No fees are believed to be due in connection with this paper. However, if there is any such fee due, please charge any such fee to the deposit account No. 09-0458.

Respectfully submitted,



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